CLAIMS:

1.   Integrated circuit comprising a plurality of processing modules (M; I; S; T) and a network (N; RN) arranged for providing at least one connection between a first and at least one second module,

wherein the at least one connection comprises a set of communication channels each having a set of connection properties, the connection properties of the different communication channels of said connection being adjustable independently,

wherein said connection supports transactions comprising outgoing messages from the first module to the second module and/or return messages from the second module to the first module.

2.   Integrated circuit according to claim 1, further comprising:

at least one communication managing means (CM) for managing the communication between different modules; and

at least one resource managing means (RM) for managing the resources of the network (N).

3.   Integrated circuit according to claim 2, wherein

said first module (M; I) is adapted to issue a request (REQ) for a connection with at least one of said second modules to said communication managing means (CM),

said communication managing means (CM) is adapted to forward said request (REQ) for a connection with communication channels each having a specific set of connection properties to said resource managing means (RM),

said resource managing means (RM) is adapted to determine whether the requested connection based on said communication channels with said specific connection properties are available, and to respond the availability of the requested connection to said communication managing means (CM),

wherein a connection between the first and second module is established based on the available properties of said communication channels of said connection.

4.   Integrated circuit according to claim 2 or 3, wherein
            said communication managing means (CM) is adapted to reject establishing a
connection based on the available connection properties when the available connection
5   properties are not sufficient to perform the requested connection between said first and
second module (M, I, S, T).

5.   Integrated circuit according to claim 2, 3 or 4, wherein
            said communication managing means (CM) is adapted to request a reset of the
10   connection between said first and second module(M, I, S, T), when said modules have
successfully performed their transactions.

6.   Integrated circuit according to claim 2, 3, 4 or 5, further comprising:
            at least one network interface means (NI), associated to each of said modules,
15   for managing the communication between said modules and said network (N).

7.   Method for exchanging messages in an integrated circuit comprising a
plurality of modules, the messages between the modules being exchanged over connections
via a network,
20   wherein said connections comprises a set of communication channels each
having a set of connection properties, any communication channel being independently
configurable,
            wherein said connection through the network supports transactions comprising
outgoing messages from the first module to the second module and/or return messages from
25   the second module to the first module.